Serial No.10/808,838

Claim 5 (currently amended) A conductive metallic soil penetrating electrode for use in making an electrical connection with soil for the purpose of measuring soil electrical parameters comprising in combination: ~~which has a long, small angle conical part that permits totally intimate electrical contact with the soil as the electrode is driven in.~~

a) said electrode having an axially longitudinally elongated body defining first and second integral sections, the first section having ground engaging slim taper along the majority of its length, the second section being substantially cylindrical along the majority of its length,

b) said first section having a primary end defining a tip, and a secondary end forming a shoulder which extends outwardly away from a junction defined by said sections,

c) said first section at said junction having an overall cross dimension which exceeds the diameter of said second section proximate the junction, the ratio of said overall cross dimension to said second section diameter being about 4/3,

d) said electrode configured to receive radio frequency energy at said second section.

8. (new) The electrode of claim 1 further characterized by at least three of the following:

i) said tip being blunted

ii) said tip having a diameter of about 3/16 inch

iii) said overall cross dimension is about ½ inch

iv) said first section has an overall length of about 3 inches

v) said taper is about 3.0 degrees

vi) the diameter of the second section proximate the junction is about 3/8 inch

vii) the diameter of the second section along the majority of its length is about 3/8 inch

viii) the second section has a length of about 3 inches

ix) the overall length of the electrode is about 6 inches

x) said second section has a cylindrical surface locus to which an electrical connector is applied

x) the first section is driven into the earth to a level proximate said junction.